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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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08/811.234 03/03/97 SUGIMOTO

H 35.C10048-C1

EXAMINER

E1M1/0807

FITZPATRICK CELLA HARPER AND SCINTO
277 PARK AVENUE
NEW YORK NY 10172

HARTARY, J.
ART UNIT PAPER NUMBER

2108

17

DATE MAILED:

08/07/97,

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☐ Responsive to communication(s) filed on _____

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-62 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-62 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

- SEE OFFICE ACTION ON THE FOLLOWING PAGES -

BEST AVAILABLE COPY

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1. Claims 1-35 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because terms used do not have an antecedent basis. For example, Claim 1 calls for an apparatus for forming an image on a recording medium by discharging a plurality of inks from a plurality of ink discharge means, each ink having a penetrability, a dye density, and a color. The plurality of discharge means, the inks and the recording medium are not positively recited elements of the combination and therefore lack proper antecedent basis. Terms, for example, penetrability, low dye density, different dye, more penetrability, and high dye density lack antecedent basis in the claims. For example, in Claim 21, the terms plural discharge ports and a plurality of inks additionally lack antecedent basis. The claims are also indefinite because they do not recite sufficient structure or steps to support the claimed functions. For example, Claim 14 calls for a method for forming an image on a recording medium by discharging a plurality of inks from a plurality of ink discharge means. The claim is incomplete in that there are no further steps recited to support the claimed functions. For example, Claim 36 calls for a recorded article comprising a plurality of inks. The claim is incomplete for lack of structure defining the recorded article.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-35 are rejected under 35 U.S.C. § 103 as being unpatentable over Matsumoto 4,860,026 in view of Suzuki 4,551,736 and Sugimoto 5,477,248. Matsumoto discloses (Figure 9) an ink jet apparatus for forming an image on recording medium 51 by using a plurality of ink discharge means 58-1 - 58-10 having a plurality of inks with different dye densities (thin, mid, thick). The claims further recite the penetrability of inks having different dye densities is different, and the ink having low dye density has superior penetrability to the ink having high dye density on the medium. Suzuki discloses ink jet inks with different dye densities can have different amounts of solvent and therefore different penetrability. Sugimoto discloses the use of different penetrability for inks in ink jet recording. It would have been obvious that the Matsumoto recording apparatus could have a plurality of inks with the penetrability claimed as a matter of forming images in a manner suggested by Suzuki and Sugimoto. The ink jet method of Claims 14-20 are suggested by the cited references.

4. Claims 36-62 are rejected under 35 U.S.C. § 103 as being unpatentable over Matsumoto 4,860,026 in view of Suzuki 4,551,736. The recorded article of Claim 36 would be suggested by the recorded sheet 51 of Matsumoto. Matsumoto discloses an ink jet recording apparatus (Figure 9) having plural discharge means 58-1 - 58-10 for recording on sheet 51. The

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plural inks have different dye densities (thin, mid, thick). Different dye densities could obviously have different penetrabilities as evidenced by Suzuki (col.6 lines 21-26).

5. Applicant's arguments filed January 7, 1997 have been fully considered but they are not deemed to be persuasive. It is argued that none of the cited references discloses or suggests different penetrabilities of inks having different dye densities and similar colors. Matsumoto discloses (Figure 9) an ink jet apparatus for forming an image on recording medium 51 by using a plurality of ink discharge means, a yellow head 58-1, three magenta heads 58-2 through 58-4, three cyan heads 58-5 through 58-7, and three black heads 58-8 through 58-10. Each of the three magenta, cyan and black heads include a thin head 58-2, 58-5, 58-8, a mid head 58-3, 58-6 and 58-9, and a thick head 58-4, 58-7 and 58-10 (col.6 lines 27-35). The modification of the inks used in these heads to include a penetrability factor would have been within the skill of a worker in the ink jet art as evidenced by Sugimoto and Suzuki.

6. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 08/248,513, filed on May 24, 1994.

7. This is an FWC of applicant's earlier Application No. 08/248,513. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the

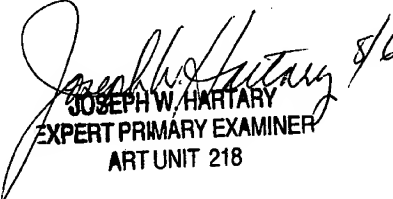
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grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph W. Hartary whose telephone number is (703) 308-3124.


JOSEPH W. HARTARY
EXPERT PRIMARY EXAMINER
ART UNIT 218

JWH
August 6, 1997